In the Claims

Applicant has submitted a new complete claim set showing marked up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

Please amend pending claims 8, 15, and 20 as noted below.

1.   (Withdrawn) A system (2) for evaluating the efficacy of therapeutic treatments of patients (40) located at remote sites (6), the system including:

a central analysis site (4);

a plurality of remote test sites (6);

input means (24) at the central analysis site for inputting signals representative of a cognitive task;

means for communicating the input signals (12) to selected remote test sites via a network (10) which provides two-way communication between the central analysis site and the remote sites;

receiving means (14,30,44) at the remote test sites for receiving the input signals and presenting the cognitive task to a patient (40) (i) before and (ii) during or after carrying out a therapeutic intervention or treatment;

detecting means (38,42) at the remote test sites for detecting brain response signals from the patient to said cognitive tasks;

means for communicating (14) said brain response signals to said central analysis site via the network;

processing means (16) for assessing the efficacy of the therapeutic intervention or treatment on the basis of differences in brain response signals before and during or after carrying out the therapeutic intervention or treatment; and

wherein the processing means (16) includes means for calculating amplitude and/or phase steady state visually evoked potentials (SSVEP) from said brain response signals for each site where a patient is treated.

2.   (Withdrawn) A system as claimed in claim 1 wherein the remote sites include storage devices (44) for storage of signals representing said cognitive task.

3.   (Withdrawn) A system as claimed in claim 1 wherein the processing means includes means for detecting changes attributable to the therapeutic intervention or treatment in SSVEP amplitude and/or phase topography.

4.   (Withdrawn) A system as claimed in claim 1 wherein the detecting means (38) includes a plurality of electrodes on which said brain response signals are received and the processing means includes means for detecting changes attributable to the therapeutic intervention or treatment in inter-electrode SSVEP coherence.

5.   (Withdrawn) A system as claimed in claim 3 wherein processing means produces output signals which represent animated brain maps.

6.   (Withdrawn) A system as claimed in claim 5 wherein said means for communication transmits said output signals to the remote site from which said output signals were derived for presentation to a clinician.

7.   (Withdrawn) A system as claimed in claim 6 wherein the remote site includes display means for display of said output signals as animated brain maps.

8.   (Currently Amended) A method of evaluating the efficacy of therapeutic intervention in a patient [[(10)]] including the steps of recording a first steady state visually evoked potential (SSVEP) from the patient at a remote site [[(6)]] while undertaking a first cognitive task, carrying out a therapeutic intervention or treatment on the patient, recording a second steady state visually evoked potential (SSVEP) from the patient while undergoing a second cognitive task, assessing at a central site [[(4)]] the efficacy of the therapeutic intervention on the basis of differences between the first and second SSVEP's.

9.   (Original) A method as claimed in claim 8 wherein the first and second cognitive tasks are similar or the same.

10.   (Original) A method as claimed in claim 9 wherein the therapeutic intervention or treatment is for the purpose of treating neuropsychiatric disorders.

11.   (Original) A method as claimed in claim 10 wherein the step of carrying out the therapeutic intervention includes the step of administering a test dose of a psychotropic medication.

12.   (Original) A method as claimed in claim 11 wherein the psychotropic medication comprises a chemical compound or compounds used in the treatment of psychiatric, psychological, behavioural, educational or neurological disorders.

13.   (Original) A method as claimed in claim 12 wherein the step of assessing the efficacy includes the steps of detecting changes associated with therapeutic intervention in the SSVEP amplitude and/or phase topography.

14.   (Original) A method as claimed in claim 12 wherein the steps of obtaining first and second signals are effected by placing electrodes adjacent to the scalp of the patient, the first and second signals being produced on said electrodes and the step of assessing the efficacy includes detecting changes in inter-electrode SSVEP coherence.

15.   (Currently Amended) A method of evaluating the efficacy of therapeutic treatments of patients [[(40)]] located at remote sites [[(6)]], the method including the steps of:
          causing a patient to carry out a first cognitive task at a remote site;
          obtaining first signals representing the response of the patient's brain to said cognitive
task;
          carrying out a therapeutic treatment on the patient;

obtaining second signals representing the response of the patient's brain to a second cognitive task whilst under the influence of said treatment;

transmitting the first signals and the second signals to a central analysis site [[(4)]];

analysing the first and second signals at the central analysis site to assess the efficacy of the therapeutic treatment by calculating the amplitude and/or phase steady state visually evoked potentials (SSVEP) from said first and second signals; and

transmitting the results of the assessment to the remote site.

16.   (Withdrawn) A system for evaluating the efficacy of therapeutic treatments of patients (40) located at remote sites, the system including:

a central analysis site (4);

input means (24) for inputting signals representative of a cognitive task;

means for communicating the input signals (12) to selected remote test sites via a network (10) which provides two-way communication between the central analysis site and the remote sites for transmission of said signals to selected remote sites for presentation to a patient (i) before and (ii) during or after carrying out a therapeutic intervention or treatment;

means (14) for receiving said brain response signals of the patients transmitted to said central analysis site via the network;

processing means for assessing the efficacy of the therapeutic intervention or treatment on the basis of differences in brain response signals before and during or after carrying out the therapeutic intervention or treatment; and

wherein the processing means (16) includes means for calculating amplitude and/or phase steady state visually evoked potentials (SSVEP) for each site where a patient is treated.

17.   (Withdrawn) A system as claimed in claim 16 wherein the processing means includes means for detecting changes attributable to the therapeutic intervention or treatment in SSVEP amplitude and/or phase topography.

18.   (Withdrawn) A system as claimed in claim 17 wherein processing means produces output signals which represent animated brain maps.

19.   (Withdrawn) A system as claimed in claim 18 wherein said means for communication transmits said output signals to the remote site from which said output signals were derived.

20.   (Currently Amended) A method of evaluating the efficacy of therapeutic intervention in a patient [[(40)]] including the steps of:

obtaining data representing a first steady state visually evoked potential (SSVEP) from a patient at a remote site [[(6)]] while undertaking a first cognitive task;

obtaining data representing a second steady state visually evoked potential (SSVEP) from the patient while undergoing a second cognitive task during or after a therapeutic intervention; and

assessing at a central site [[(4)]] the efficacy of the therapeutic intervention on the basis of differences between the first and second SSVEP's.

21.   (Original) A method as claimed in claim 20 wherein the first and second cognitive tasks are similar or the same.